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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/632,600

08/04/2000

Swarn S. Kalsi

05770-121001

2623

7590

05/02/2002

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Boston, MA 02110-2804

EXAMINER

LE, DANG D

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 05/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/632,600

Applicant(s)

KALSI

Examiner

Dang D Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3/14/02 have been fully considered but they are not persuasive. The applicant's argument is on the ground that Mole et al. do not show the windings of a transformer and the poles being positioned between the primary and secondary windings. The so called transformer in the exciter assembly of the applicant recited in independent claim 1 and described in the specification is a rotary transformer and works as a generator. The machine of Moles et al. also works as a generator (column 6, line 14). It is noted that although the windings 111 and 115 of Moles et al. are respectively identified as stator winding and super conductive field winding, they work as primary and secondary windings of the rotary transformer because the machine of Mole et al. can work as a generator. In addition, Figure 6 clearly shows the intermediate core (141 not 117) positioned between the primary and secondary winding (111 and 115). Therefore, the rejection is deemed proper and repeated herein.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Mole et al.

Regarding claim 1, Mole et al. show an exciter assembly for supplying power to a super conducting load disposed within a cryogenic region of a rotating machine, the exciter assembly (Figures 5 and 6) comprising:

- A transformer having a primary winding (111) and a secondary winding (115), one of the primary and secondary windings being positioned in a rotational reference frame (101) relative to the other of the primary and secondary windings; and
- A rotatable enclosure (119) including a wall (137) having an intermediate core (141, Figure 6) formed of a high permeability material (column 9, lines 5-10), the intermediate core positioned between the primary winding of the transformer and the secondary winding of the transformer (Figures 5 and 6).

Regarding claim 2, it is noted that Mole et al. also show the primary winding (11) being disposed external to the rotatable enclosure and the secondary winding (115) being disposed within the rotatable enclosure.

Regarding claim 8, it is noted that Mole et al. also show a rotatable enclosure (119, Figures 5 and 6) surrounding a housing (127) having an internal volume (121) for supporting cryogenically-cooled components, the rotatable enclosure comprising a wall (137) including a flux window (117) formed of a high permeability material (column 9, lines 5-10), the flux window positioned between a primary (111) of a transformer disposed external to the rotatable enclosure and a secondary (115) of the transformer disposed within the rotatable enclosure.

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4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mole et al. in view of Rao.

Regarding claim 3, Mole et al. show all of the limitations of the claimed invention with the wall of the rotatable enclosure disposed within the gap except for the primary winding being in the form of a stationary disk and the secondary winding being in the form of a rotatable disk axially spaced from the stationary disk to form a gap therebetween.

Rao shows the primary winding (22, Figure 1) being in the form of a stationary disk (20) and the secondary winding (16) being in the form of a rotatable disk (14) axially spaced from the stationary disk to form a gap therebetween for the purpose of making an axial air gap bearing.

Since Mole et al. and Rao are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make the primary winding in the form of a stationary disk and the secondary winding in the form of a rotatable disk axially spaced from the stationary disk to form a gap therebetween as taught by Rao for the purpose discussed above.

Regarding claim 4, it is noted that Rao also shows at least one of the stationary disk and the rotatable disk being formed of radial laminations.

Regarding claim 5, it is noted that Mole et al. also show the intermediate core being formed of radial laminations.

Regarding claim 6, it is noted that Rao also shows the stationary disk and the rotatable disk being each formed of core segments (Figure 1), each core segment on each of the stationary disk and rotational disk disposed in a radial direction and angularly spaced from another core segment of the stationary disk and rotational disk, respectively.

Regarding claim 7, it is noted that Mole et al. also show the intermediate core being formed of core segments (Figure 5), each core segment on the intermediate core disposed in a radial direction and angularly spaced from another core segment of the intermediate core.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Information on How to Contact USPTO

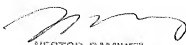
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D Le whose telephone number is (703) 305-0156. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7382 for regular communications and (703) 308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

DDL
April 26, 2002

DL


NESTOR RAMIREZ
SUPERVISORY PATENT EXAMINER
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